

WM-EX511/EX618

SERVICE MANUAL



Photo : WM-EX511

AEP Model
UK Model
E Model
 WM-EX618
Tourist Model
 WM-EX511

Model Name Using Similar Mechanism	WM-EX606
Tape Transport Mechanism Type	MT-WMEX911-60

SPECIFICATIONS

Frequency response (DOLBY NR* off)
 20 - 18,000 Hz (EIAJ**)
 Output Earphones (□/REMOTE jack)
 load impedance 8 - 300 Ω
 Power output 5 mW + 5 mW at DC operation (EIAJ, 16 Ω)
 Power requirements 1.5 V DC Rechargeable battery (NC-6WM)
 One R6 (size AA) battery

Battery life (EIAJ)

Battery	Playback
Rechargeable NC-6WM fully charged	Approx. 3.5 hours
Sony alkaline AM3 (N)	Approx. 9 hours
Rechargeable NC-6WM with Sony AM3 (N)	Approx. 12.5 hours
Sony SUM-3 (NS)	Approx. 2.5 hours

For maximum performance we recommend the use of alkaline battery.

Dimensions Approx. 108.4 x 77.2 x 20.3 mm (w/h/d)

Mass
 incl. projecting parts and controls (EIAJ)
 Main unit Approx. 150 g
 For use Approx. 245 g (incl. Stereo earphone with remote controller, rechargeable battery NC-6WM, tape C-60HF)

Accessories supplied

- Battery case
- Battery charger
- Sony alkaline battery AM3 (N)
- Rechargeable battery
- Headphone (with Remote Control)
- Ear adaptors(2)
 (If the earphones do not fit your ears, attach the ear adaptors.)
- Carrying case
- Clip
- Instruction manual
- Leaf lets
- Warranty card

Using on AC power

Remove the rechargeable battery if inserted and attach the battery case and connect the AC power adaptor (AC-E15HG not supplied) to the DC IN 1.5 V of the battery case and to the wall outlet. Do not use any other AC power adaptor.



CASSETTE PLAYER
SONY®



Design and specifications subject to change without notice.

* Dolby noise reduction manufactured under licence from Dolby Laboratories Licensing Corporation.
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** (EIAJ) Electric Industries Association of Japan

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Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

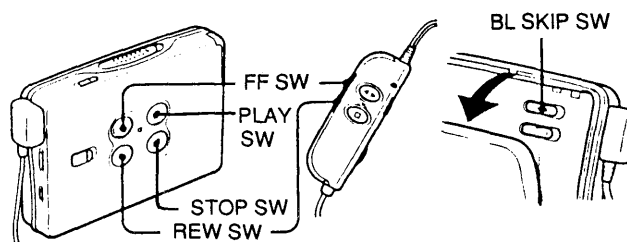
SECTION 1

SERVICING NOTE

Hall element H701 mounted on the main board is used to detect rotation of the reels. Because it is mounted on the main board, when the main board is being removed, rotation of the reels cannot be detected and the auto-off/tape-end detector circuit does not operate correctly.

Switch S702 (for N/R and FF/REW) is also mounted on the main board. Therefore, without the main board, the head cannot be placed in playback position, and power cannot be supplied to the circuitry of the playback system.

When the main board is being removed, follow the procedures below, in order to check operation of the mechanisms of the tape deck and to check voltages supplied to each circuit.



SETTING

- 1) Refer to "Disassembly" and remove the cabinet and open the MAIN board.
- 2) Turn OFF the BL SKIP switch (S704) of the MAIN board.
- 3) Supply 1.5V to the battery terminals (+) and (-) using a stabilized power supply.

Note 1 : Do not change the setting position of switch S702 when removing the main board. If it has been changed accidentally, or if the desired mode cannot be set with the switch, adjust the setting again after the audio board is installed.

Note 2 : Use the remote control ◀▶, □, FF, and REW switches as much as possible. If the remote control is not available, do not touch S707 to S710 with the hand and use something with a round tip to press them.

FF/REW mode

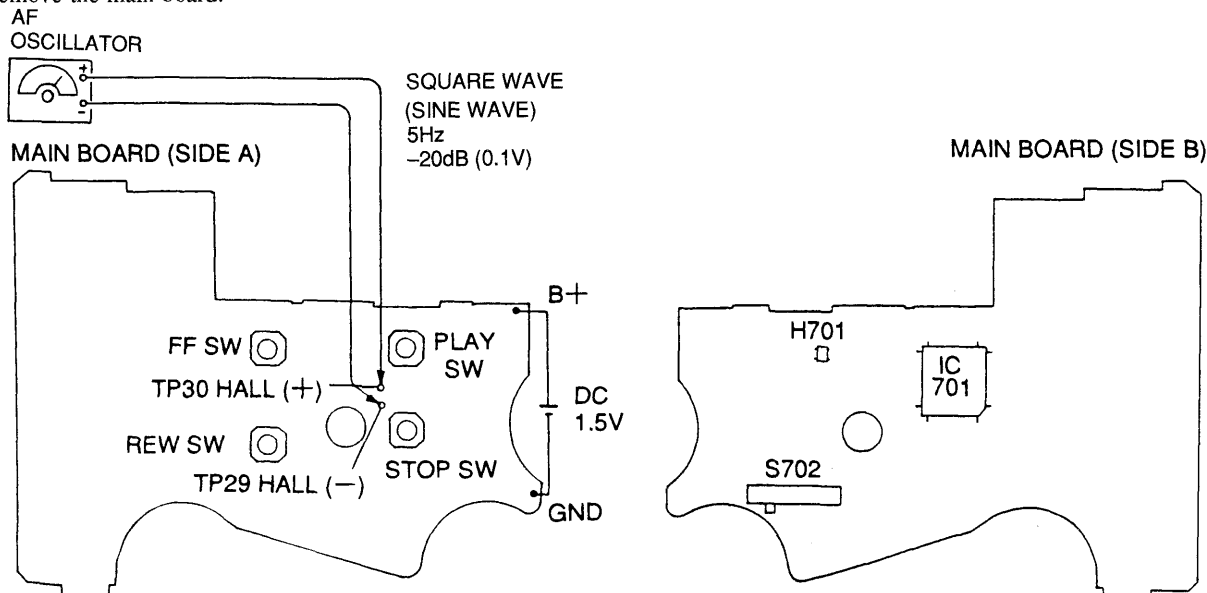
- (1) Apply a square wave signal or a sine wave signal to hall element sensor H701. (See the figure below.)
- (2) Slide the STOP switch for selecting STOP mode.
- (3) Slide the FF or REW switch.
- (4) Remove the main board.

PLAY mode

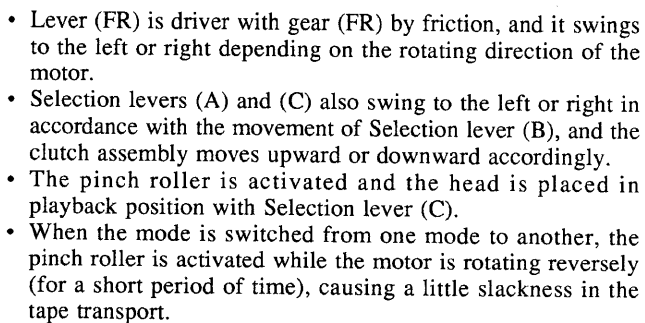
- (1) Apply a square wave signal or a sine wave signal to hall element sensor H701. (See the figure below.)
- (2) Slide the STOP switch for selecting STOP mode.
- (3) Slide the PLAY switch.

With the audio board installed, Slide the PLAY switch selects the FWD or REV mode alternatively.

- (4) Remove the main board.



- Mode selection starts when the motor rotates reversely.
- Selection lever (B) moves to the left or right when driver whin the gear (cam).
- The swich set position of switch S702 (4-position switch) is determined in accordance with the position of Selection lever (B). When the switch set position is set appropriately, the moter rotates normally and the tape starts moving.



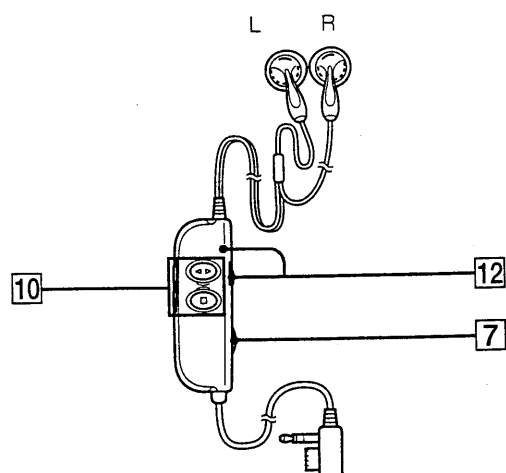
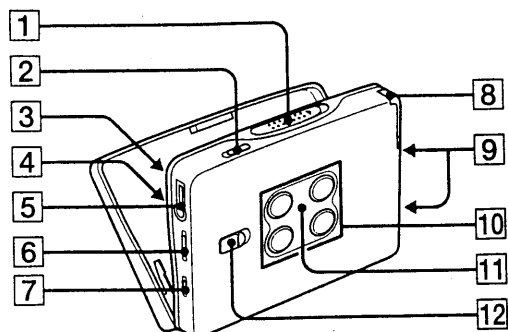
A detailed schematic diagram of the timing belt drive mechanism. The diagram shows a series of gears and pulleys connected by a timing belt. Key components labeled include: gear (E), gear (DK), gear (F), gear (G), gear (reel) T side, gear (FR), gear (AK), gear (BK), gear (CAP), flywheel (NSK), flywheel (RS), pulley (reverse), motor pulley, and clutch ass'y. Arrows indicate the belt's path and the forward (FWD) and reverse (REV) directions of rotation.

A schematic diagram of the drive mechanism for the reel. It shows a motor pulley connected by a belt to a pully (reverse). This pully is connected to a flywheel (RS), which is connected to a gear (CAP). Gear (CAP) is connected to gear (BK), which is connected to gear (AK). Gear (AK) is connected to gear (FR), which is connected to gear (T side). Gear (T side) is connected to gear (G), which is connected to gear (E). Gear (E) is connected to gear (DK), which is connected to gear (F). Gear (F) is connected to gear (S side). A clutch ass'y is shown between gear (FR) and gear (BK). A flywheel (NSK) is shown between gear (FR) and gear (BK). A gear (REW) is shown between gear (DK) and gear (F). A gear (FF) is shown between gear (DK) and gear (F). A gear (EV) is shown between gear (FR) and gear (T side).

SECTION 2 GENERAL

This section is extracted from instruction manual.

PARTS IDENTIFICATION



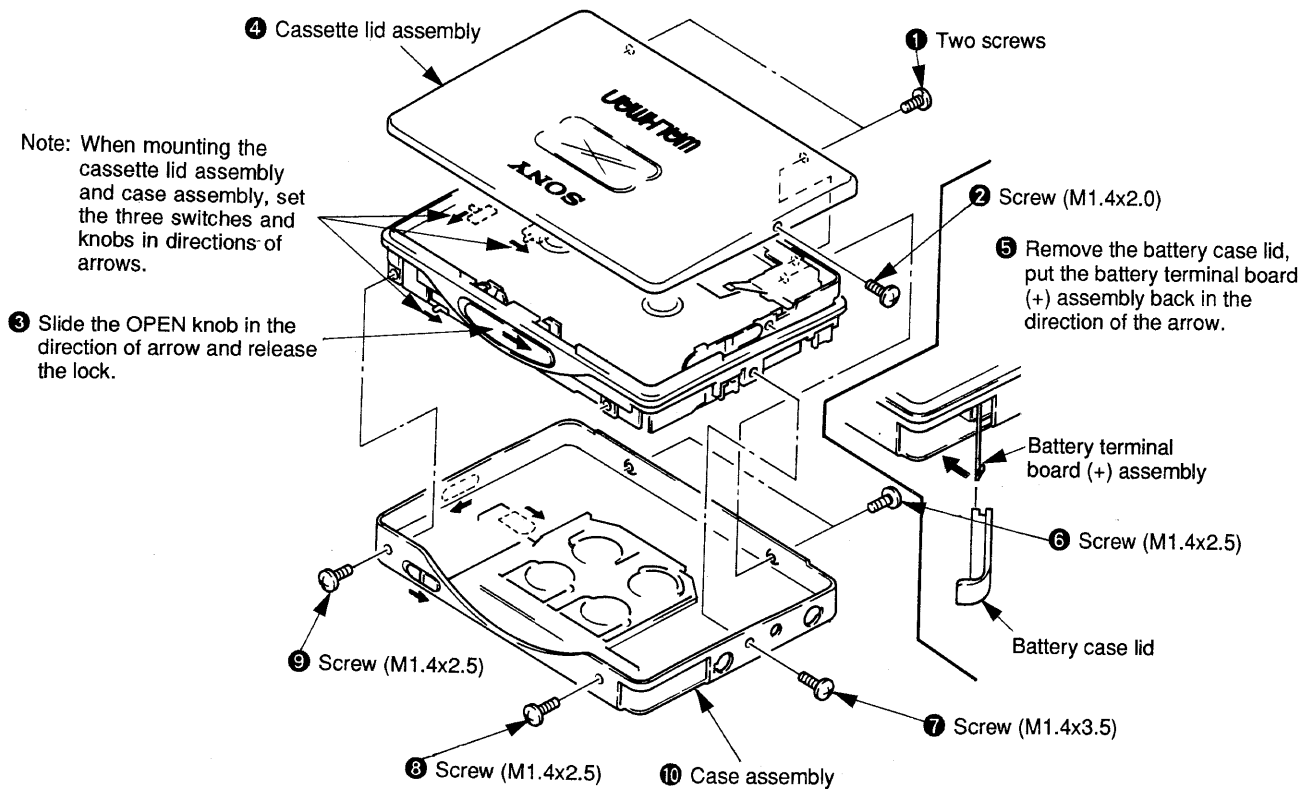
- 1 OPEN (open the Cassette lid) knob
- 2 AVLS (Automatic Volume Limiter System) switch
- 3 MODE (tape transport mode)/BL SKIP (blank skip) switch
- 4 DOLBY NR (Dolby Noise Reduction) switch
- 5 REMOTE (remote controller/headphones) jack
- 6 EX DBB (dynamic bass boost) selector
- 7 VOL (Volume) knob
- 8 Battery compartment for the rechargeable battery
- 9 Battery connecting points (for supplied battery case)
- 10 Tape operation button
- 11 BATT (battery) indicator
- 12 Hold switch and hold window

SECTION 3

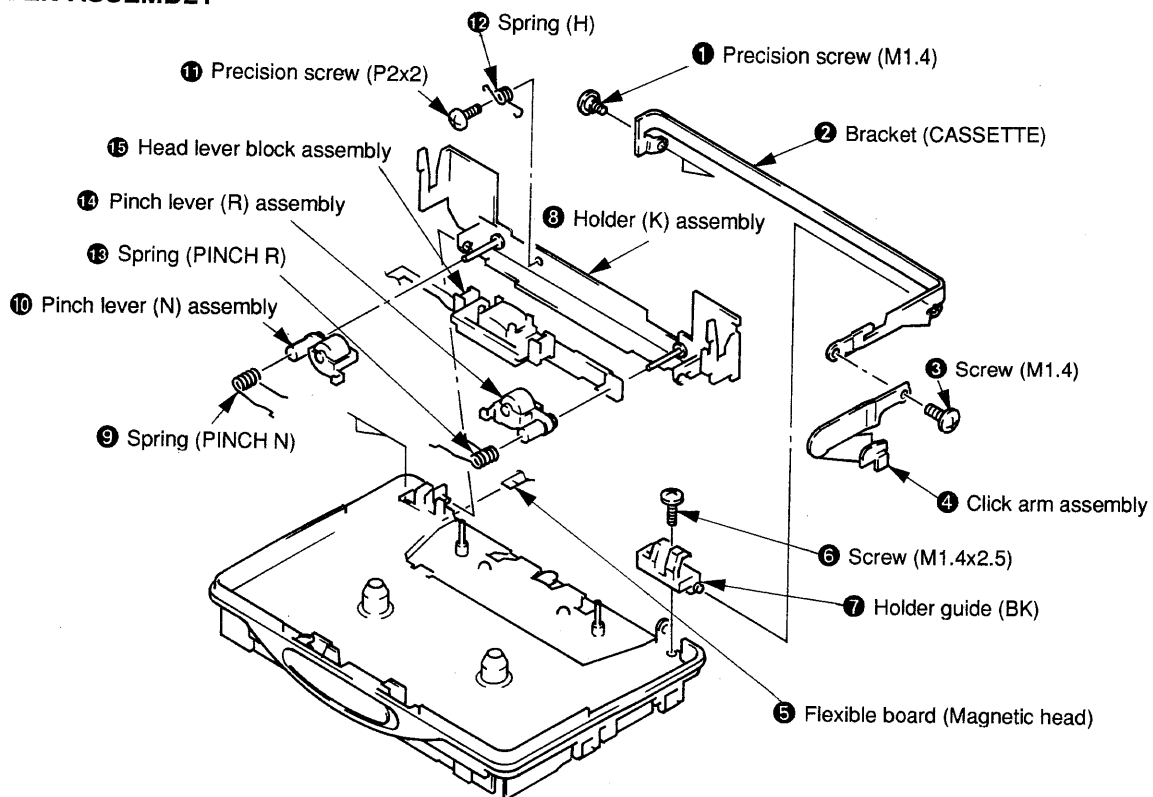
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

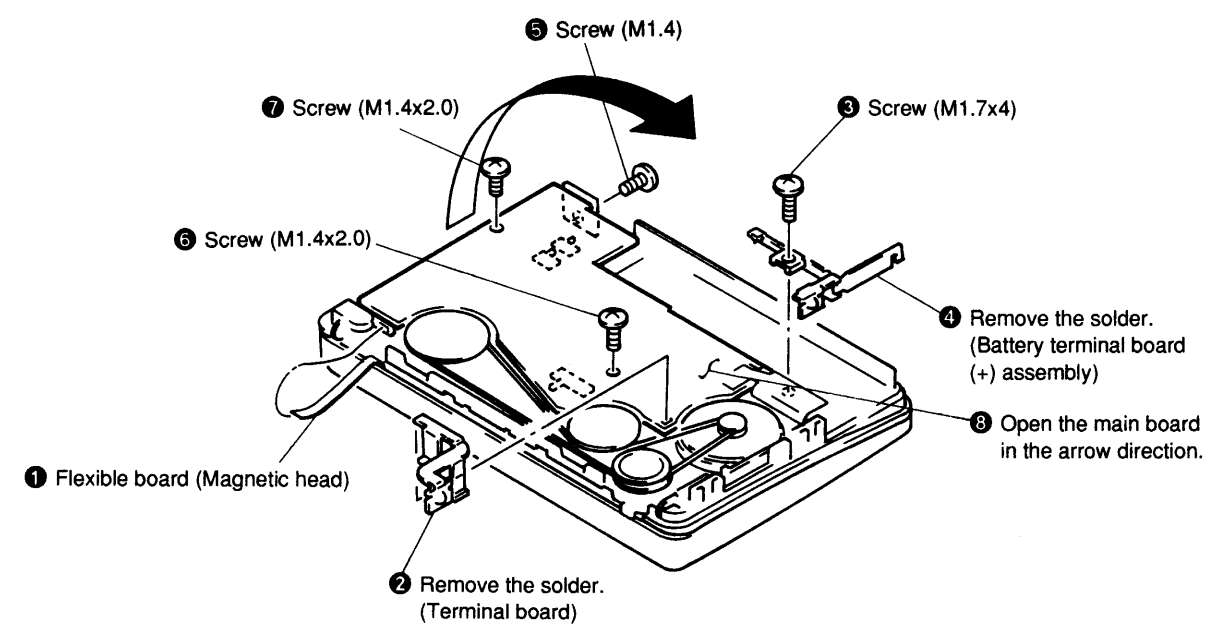
3-1. CASSETTE LID ASSEMBLY AND CASE ASSEMBLY



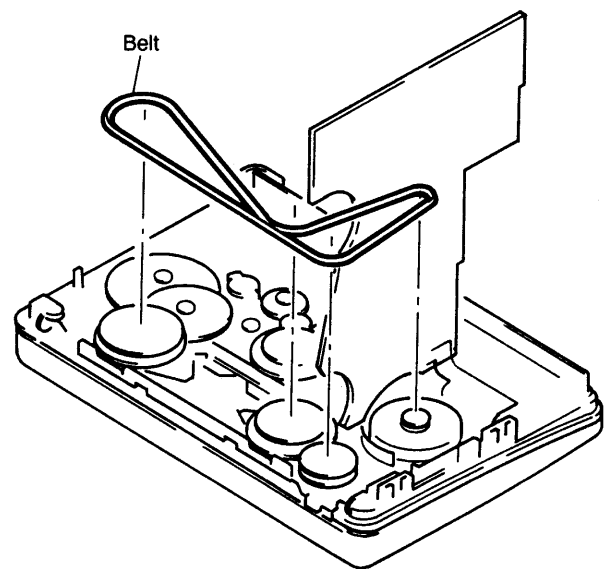
3-2. HOLDER ASSEMBLY



3-3. OPENING OF MAIN BOARD



3-4. BELT



SECTION 4

ADJUSTMENTS

4-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :

playback head	rubber belts
capstan	idlers
pinch roller	
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage (1.3V) unless otherwise noted.

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ102C	21 – 38 g • cm (0.29 – 0.53 oz • inch)
FWD Back Tension		0.5 – 3 g • cm (0.01 – 0.04 oz • inch)
REV		21 – 38 g • cm (0.29 – 0.53 oz • inch)
REV Back Tension	CQ102RC	0.5 – 3 g • cm (0.01 – 0.04 oz • inch)
FF	CQ201B	more than 60 g • cm (more than 0.84 oz • inch)
REW		

Tape Pulling Force Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-403A	more than 35 g (more than 1.23 oz)
REV	CQ-403R	

4-2. ELECTRICAL ADJUSTMENTS

PRECAUTION

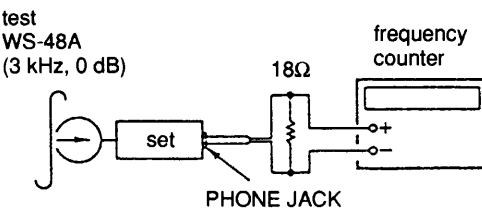
1. Power supply voltage : 1.3V.
2. Switch position
DOLBY NR switch : OFF
EX DBB switch : NORM

Test Tape

Type	Signal	Used for
WS-48A	3 kHz, 0 dB	Tape Speed Adjustment

TAPE SPEED ADJUSTMENT

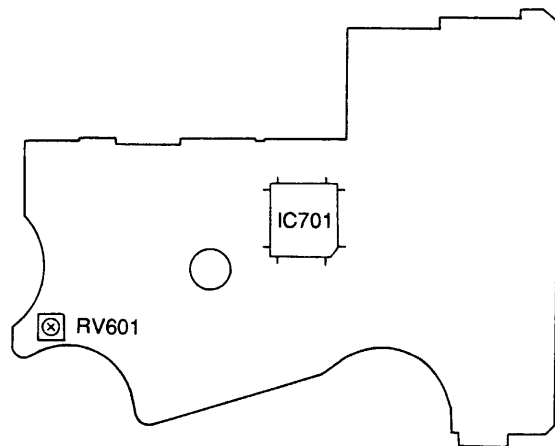
Procedure :



1. Play back WS-48A (tape center portion) in FWD mode. Adjust the RV601 so that the frequency counter reads 3,000 $\pm$ 30 Hz.
2. Play back WS-48A (tape center portion) in REV mode. Confirm that the reading of frequency counter is within 2.5% from the reading in step 1.

Adjustment Parts Location diagram :

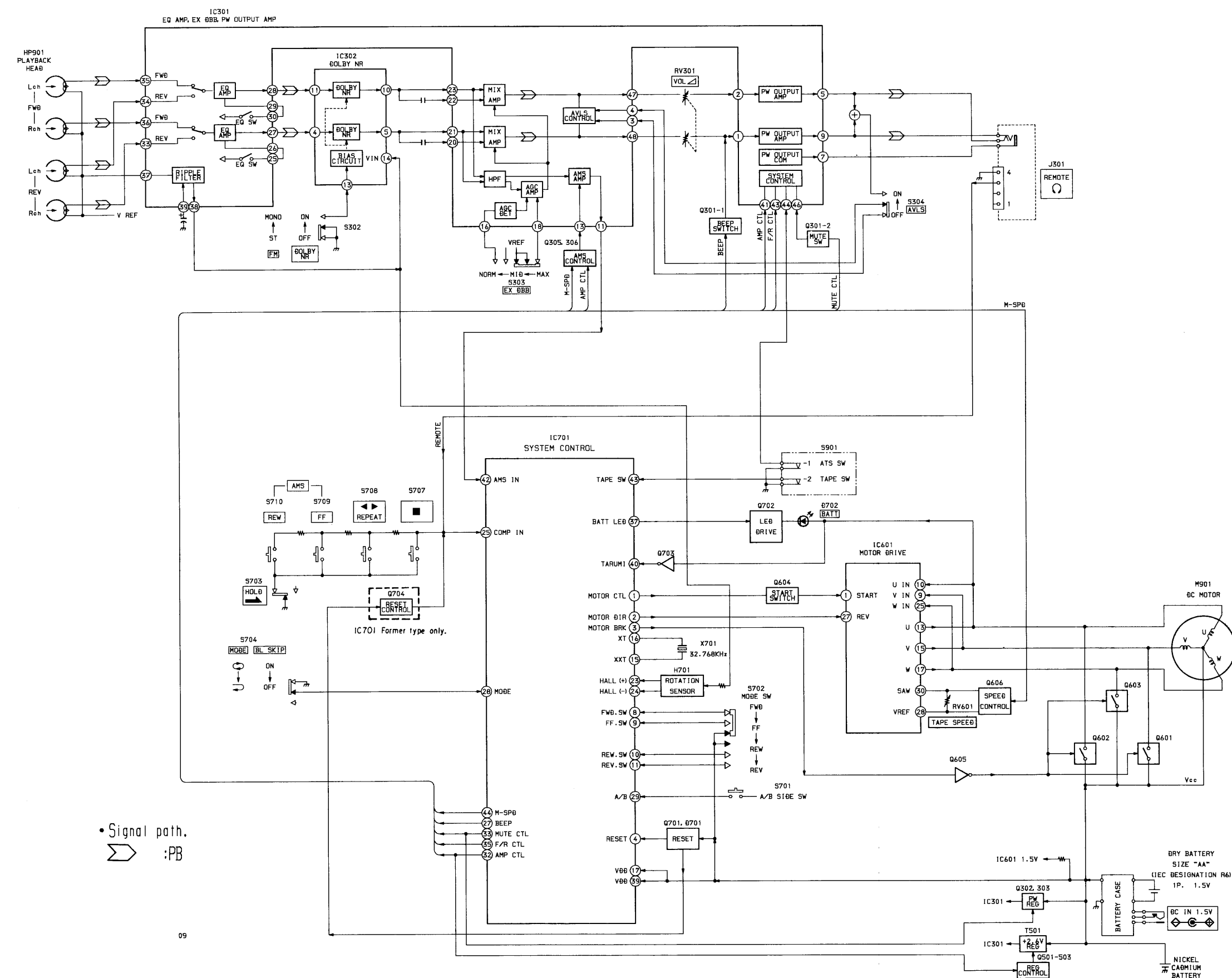
MAIN BOARD (SIDE B)



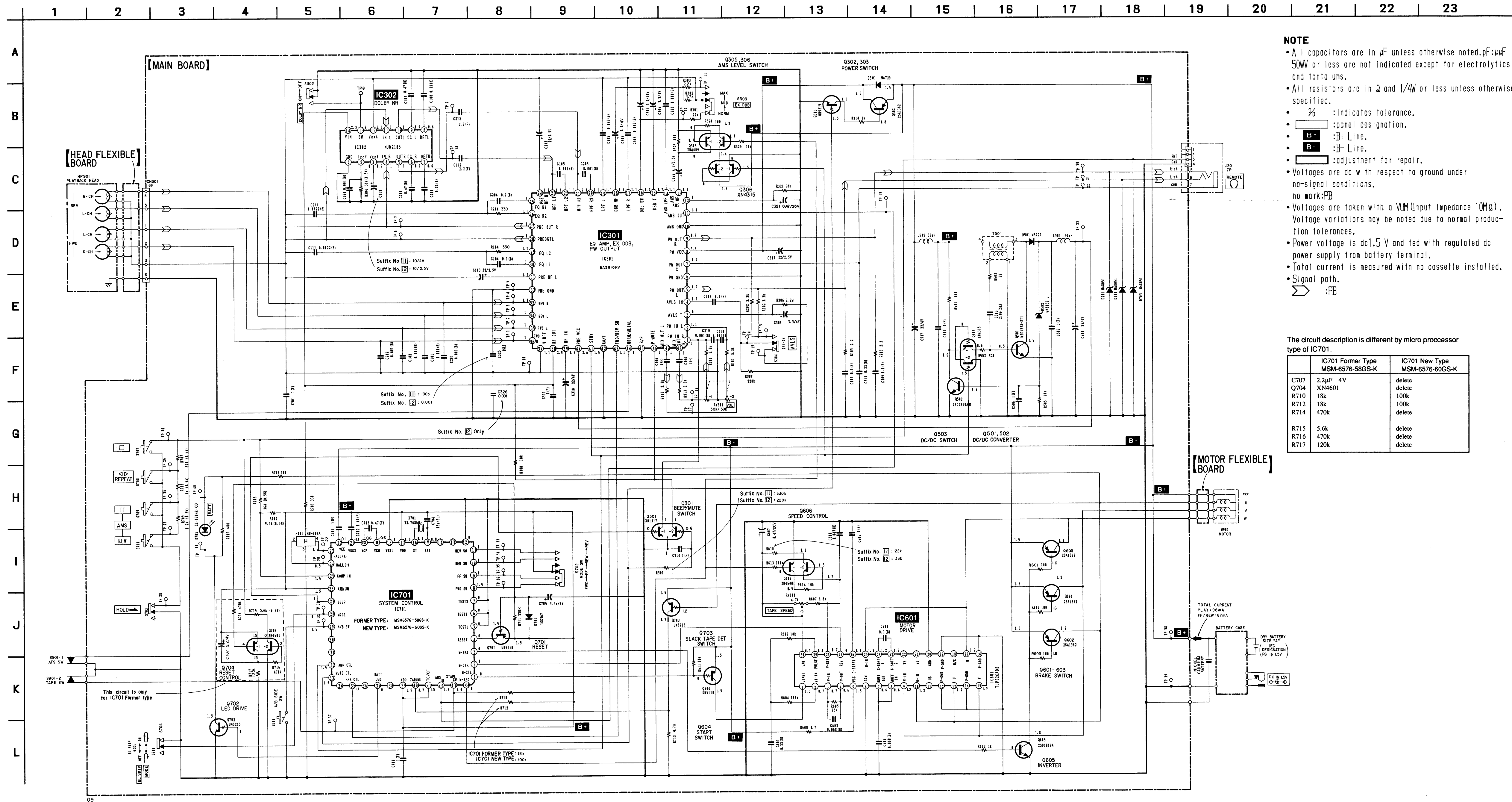
SECTION 5

DIAGRAMS

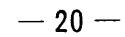
5-1. BLOCK DIAGRAM



5-2. SCHEMATIC DIAGRAM
• See page 22 for IC Pin Function. (IC701)



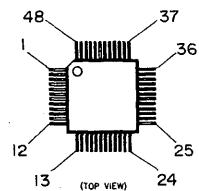
— 19 —



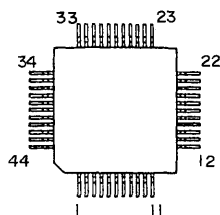
Semiconductor Location	
Ref. No.	Location
D101	B-18
D201	C-18
D301	C-3
D501	B-1
D502	B-1
D701	G-15
D702	D-6
D703	B-19
H701	D-14
IC301	D-18
IC302	D-17
IC601	E-12
IC701	D-16
Q301	D-3
Q302	B-17
Q303	C-17
Q305	C-3
Q306	D-4
Q501	B-2
Q502	B-2
Q503	B-2
Q601	D-12
Q602	D-12
Q603	D-12
Q604	F-14
Q605	C-13
Q606	F-13
Q701	F-16
Q702	D-6
Q703	G-14
Q704	G-6

5-5. SEMICONDUCTOR LEAD LAYOUTS

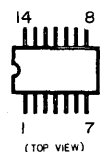
BA3610KV



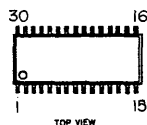
MSM6576-58GS-K
MSM6576-60GS-K



NJM2185V



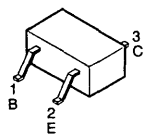
TLP326ADB



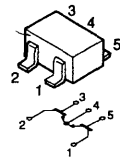
MSD1328-ST1
UN5215
2SA1362YG
2SD1819A-R



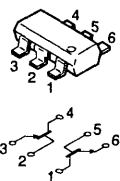
UN5110-QRS



XN1217



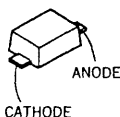
XN4315
XN4601
XN4608
XN4609



CL-170HR-CD

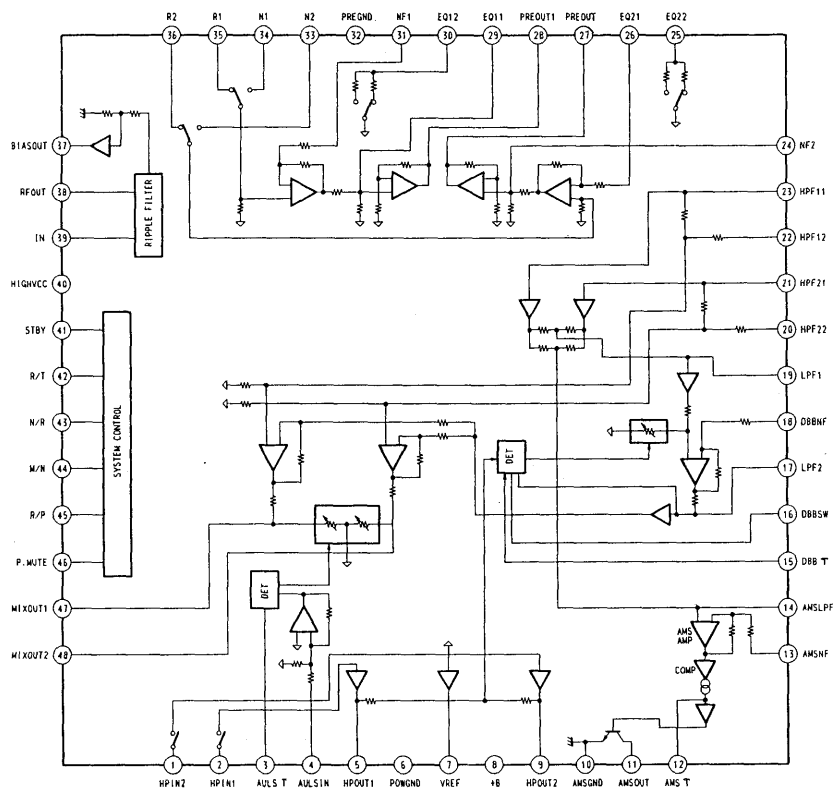


MA8036-L
MA8051
1SS367

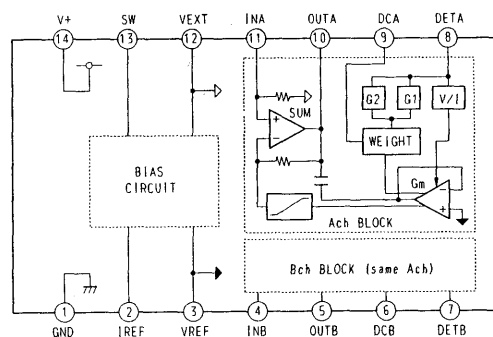


5-6. IC BLOCK DIAGRAMS

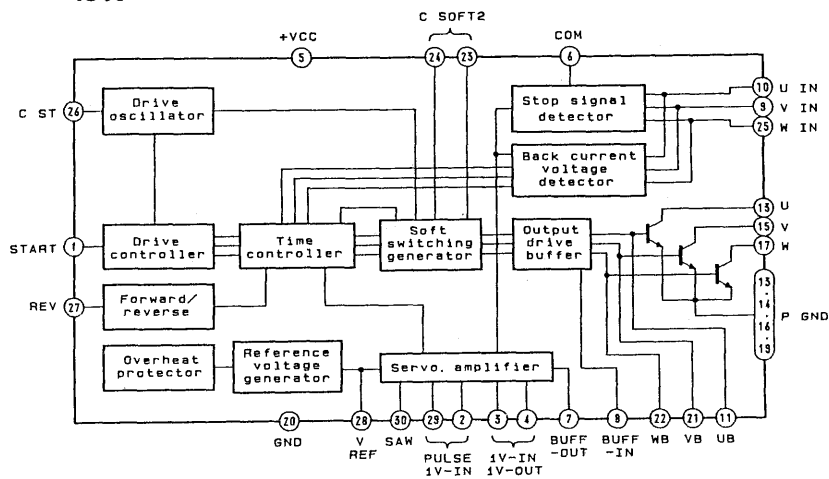
IC301 BA3610KS



IC302 NJM2185



IC601 TLP326ADB



5-7. IC PIN FUNCTION

IC701 SYSTEM CONTROL IC (MSM6576)

Pin No.	Pin Name	I/O	INT	ACT	Function
1	MOTOR CTL	O	L	H	Motor control output pin. "H"=MOTOR ON.
2	MOTOR DIR	O	L	H	Motor rotating direction control. "L"=Forward direction, "H"=Reverse direction.
3	MOTOR BRK	O	L	H	Motor brake control. "H"=BRAKE ON.
4	RESET	—	—	H	Reset pin. "H"=RESET.
5	TEST1	—	—	—	Test pin (Fixed at "L")
6	TEST2	—	—	—	Test pin (Fixed at "L")
7	TEST3	—	—	—	Test pin (Fixed at "L")
8	FWD SW	I	—	—	MD condition check. "H"=FWD SW ON.
9	FF SW	I	—	—	MD condition check. "H"=FF SW ON.
10	REW SW	I	—	—	MD condition check. "H"=REW SW ON.
11	REV SW	I	—	—	MD condition check. "H"=REV SW ON.
12	———	—	—	—	Not used.
13	———	—	—	—	Not used.
14	———	—	—	—	Not used.
15	XXT	—	—	—	Connected to crystal oscillator. (32.768 kHz)
16	XT	—	—	—	Connected to crystal oscillator. (32.768 kHz)
17	VDD	—	—	—	1.5V power supply
18	VSS1	—	—	—	GND
19	VCM	—	—	—	Boosts power supply voltage.
20	VCP	—	—	—	Boosts power supply voltage.
21	VSS2	—	—	—	Boosts power supply voltage.
22	VEE	—	—	—	Boosts power supply voltage.
23	HALL (+)	I	—	—	Connected to hole element detected by rotation.
24	HALL (-)	I	—	—	Connected to hole element detected by rotation.
25	COMP IN	I	—	—	Operation button signal input pin.
26	XRMUM	I	—	—	Connected to 1.5V.
27	BEEP	O	—	—	BEEP signal output pin.
28	MODE	I	—	—	"H"=SHUT OFF MODE, "L"=ENDLESS MODE (BL. SKIP ON)
29	A/B SW	—	—	—	"H"=MD FWD on A side, "L"=MD FWD on B side.
30	———	—	—	—	Not used.
31	———	—	—	—	Not used.
32	AMP CTL	O	L	H	Booster and amplifier power supply control. "H"=AMP ON.
33	MUTE CTL	O	L	H	Muting control. "L"=MUTE ON.
34	———	—	—	—	Not used.
35	F/R CTL	O	L	H	Head selection. "H"=FWD, "L"=REV.
36	———	—	—	—	Not used.
37	BATT LED	O	L	H	LED operation. "H"=Lights. (OFF when LOW BATT.)
38	———	—	—	—	Not used.
39	VDD	—	—	—	1.5V power supply
40	TARUMI	I	—	—	Reversible motive motor input terminal for loosening process. "L"=STOP
41	TC/CF	I	—	—	Initializing micro computer. "H"=TC, "L"=CF (Fixed at "H")
42	AMS IN	I	—	—	With/No sound input pin. "H"=With sound.
43	XTAPE SW	I	—	—	With/No tape detection. "H"=NO TAPE (returned to OFF+A side when taken out.)
44	MOTOR SPD	O	L	H	Motor rotation speed control output. "L"=Normal.

SECTION 6

EXPLODED VIEWS

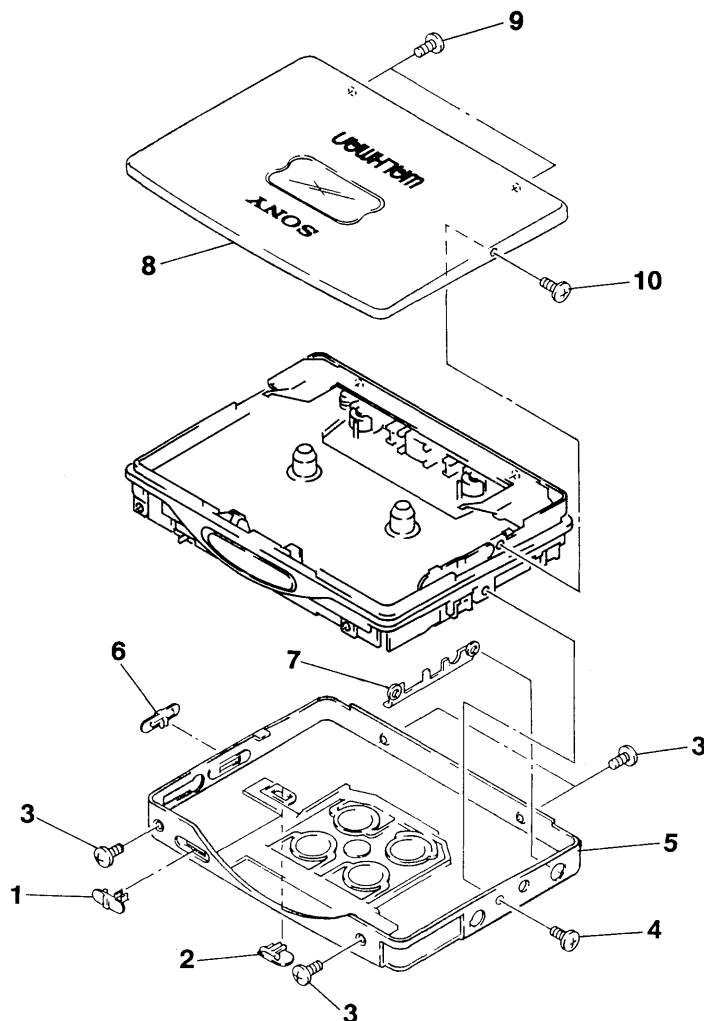
NOTE:

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
 KNOB, BALANCE (WHITE) . . . (RED)

↑
Parts color

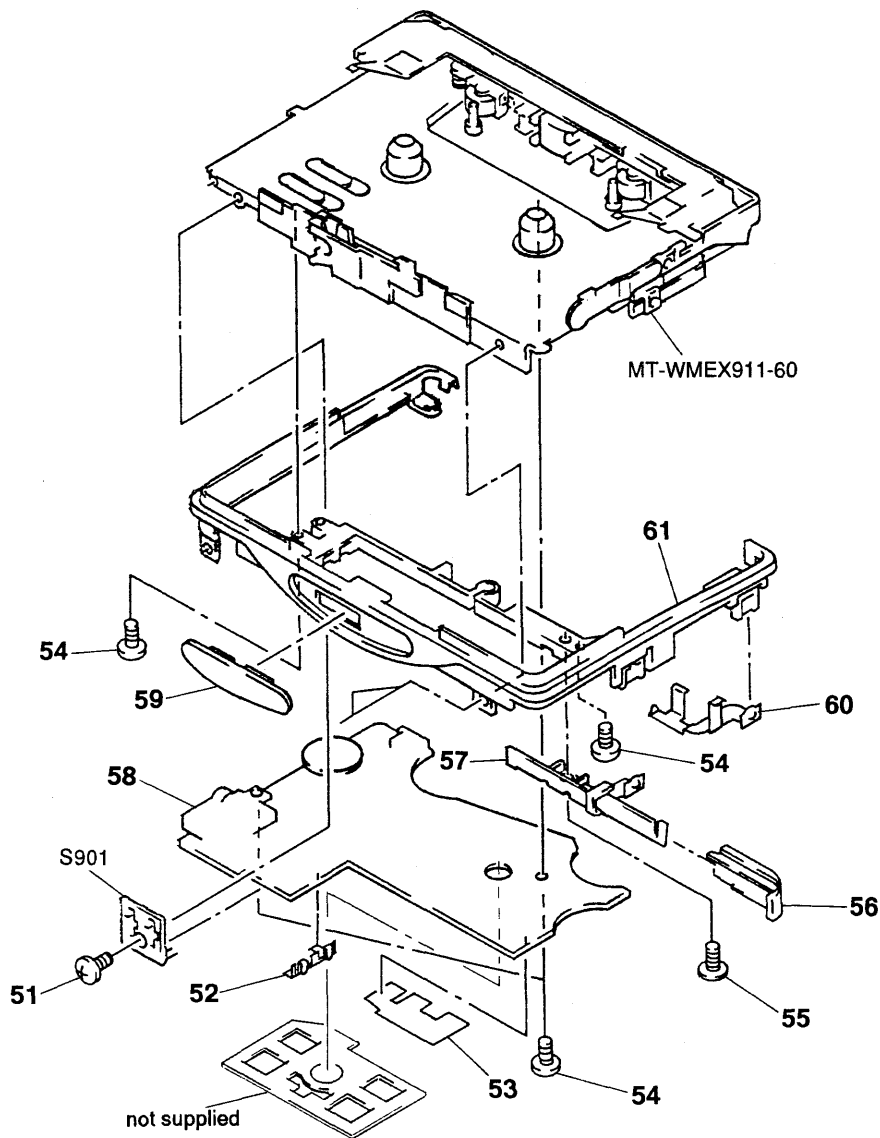
↑
Cabinet's color
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of this parts list.

6-1. CASE AND CASSETTE LID SECTION



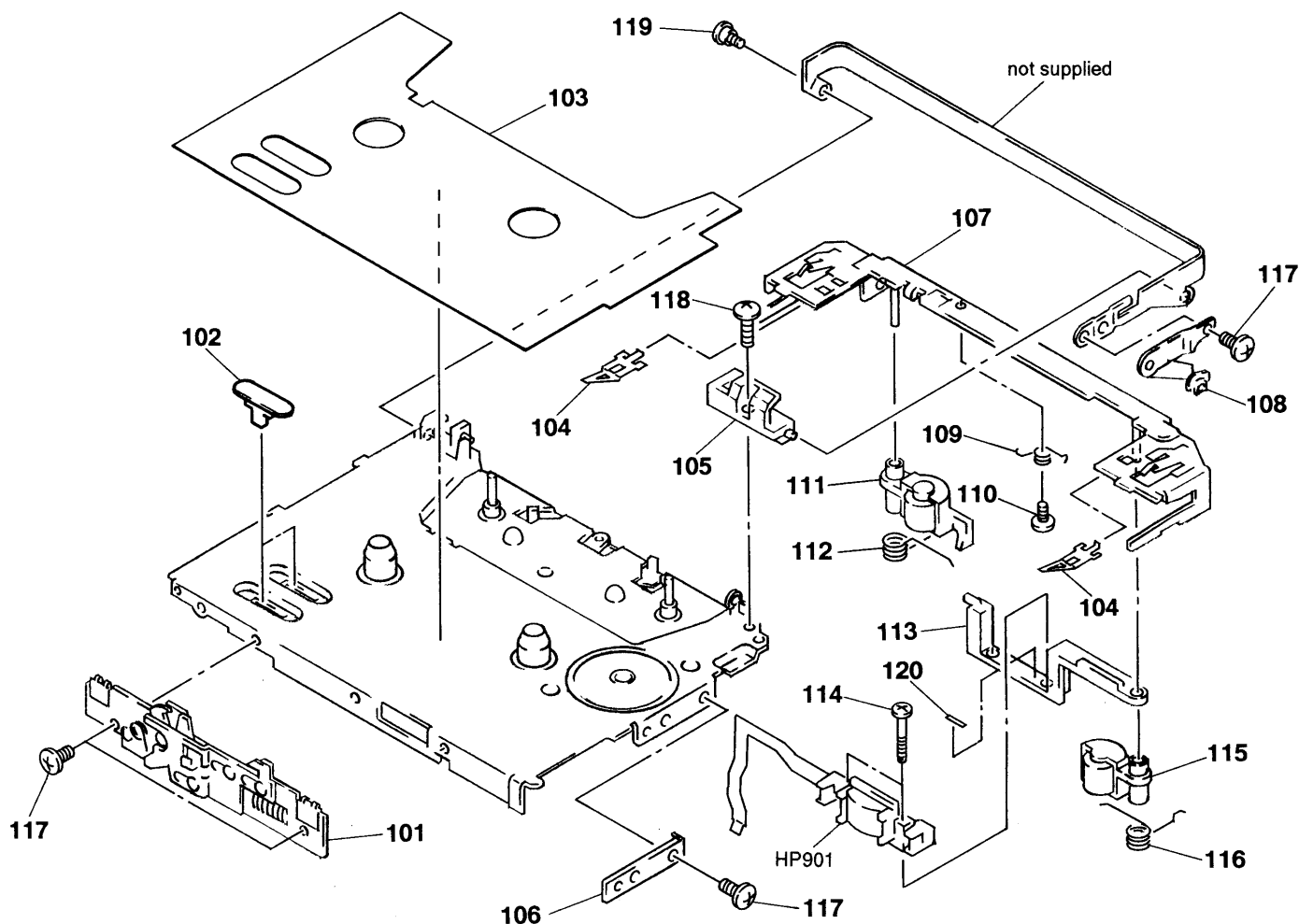
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-918-931-01	KNOB (AVLS) (BLACK).. (BLACK)		6	3-918-929-11	KNOB (DBB) (GLAY).. (BLUE)	
1	3-918-931-11	KNOB (AVLS) (GLAY).. (BLUE)		6	3-918-929-21	KNOB (DBB) (GLAY).. (SILVER)	
1	3-918-931-21	KNOB (AVLS) (GLAY).. (SILVER)		7	3-905-328-01	PLATE, ORNAMENTAL	
2	X-3370-041-1	KNOB (HOLD) ASSY		8	X-3369-375-1	LID ASSY (B), CASSETTE (BLACK)	
3	3-704-197-21	SCREW (M1. 4X2. 5), LOCKING (BLACK).. (BLACK)				(EX-511)	
3	3-704-197-23	SCREW (M1. 4X2. 5), LOCKING		8	X-3369-604-1	LID ASSY (L), CASSETTE (BLUE) (EX511)	
		(SILVER).. (BLUE, SILVER)		8	X-3369-605-1	LID ASSY (S), CASSETTE (SILVER) (EX511)	
4	3-704-197-51	SCREW (M1. 4X3. 5), LOCKING		8	X-3370-283-1	LID ASSY (B), CASSETTE (BLACK) (EX618)	
		(SILVER).. (BLUE, SILVER)		8	X-3370-284-1	LID ASSY (L), CASSETTE (BLUE) (EX618)	
4	3-704-197-53	SCREW (M1. 4X3. 5), LOCKING (BLACK).. (BLACK)		8	X-3370-285-1	LID ASSY (S), CASSETTE (SILVER) (EX618)	
5	X-3369-380-1	CASE ASSY (B) (BLACK) (EX511)		9	3-349-825-51	SCREW (SILVER).. (BLUE, SILVER)	
5	X-3369-606-1	CASE ASSY (L) (BLUE) (EX511)					
5	X-3369-607-1	CASE ASSY (S) (SILVER) (EX511)		9	3-906-045-11	SCREW (BLACK).. (BLACK)	
5	X-3370-286-1	CASE ASSY (B) (BLACK) (EX618)		10	3-704-197-11	SCREW (M1. 4X2. 0), LOCKING	
5	X-3370-287-1	CASE ASSY (L) (BLUE) (EX618)				(SILVER).. (BLUE, SILVER)	
5	X-3370-288-1	CASE ASSY (S) (SILVER) (EX618)		10	3-704-197-13	SCREW (M1. 4X2. 0), LOCKING (BLACK).. (BLACK)	
6	3-918-929-01	KNOB (DBB) (BLACK).. (BLACK)					

6-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-366-892-01	SCREW (M1.4)		57	X-3369-378-1	TERMINAL BOARD (+) ASSY, BATTERY	
52	3-918-897-11	TERMINAL BOARD (-), BATTERY		58	A-3016-629-A	MAIN BOARD, COMPLETE	
53	1-654-436-11	MOTOR FLEXIBLE BOARD		59	3-918-864-21	KNOB (OPEN)	
54	3-704-197-21	SCREW (M1.4X2.0), LOCKING		60	3-918-898-01	TERMINAL BOARD	
55	3-375-114-01	SCREW (M1.7X4)		61	3-918-863-21	ORNAMENT, REEL (BLACK).. (BLACK)	
56	3-918-895-01	LID, BATTERY CASE (BLACK)		61	3-918-863-31	ORNAMENT, REEL (GLAY).. (BLUE, SILVER)	
56	3-918-895-11	LID, BATTERY CASE (BLUE)		S901	1-762-187-11	SWITCH, LEAF (ATS, TAPE)	
56	3-918-895-21	LID, BATTERY CASE (SILVER)					

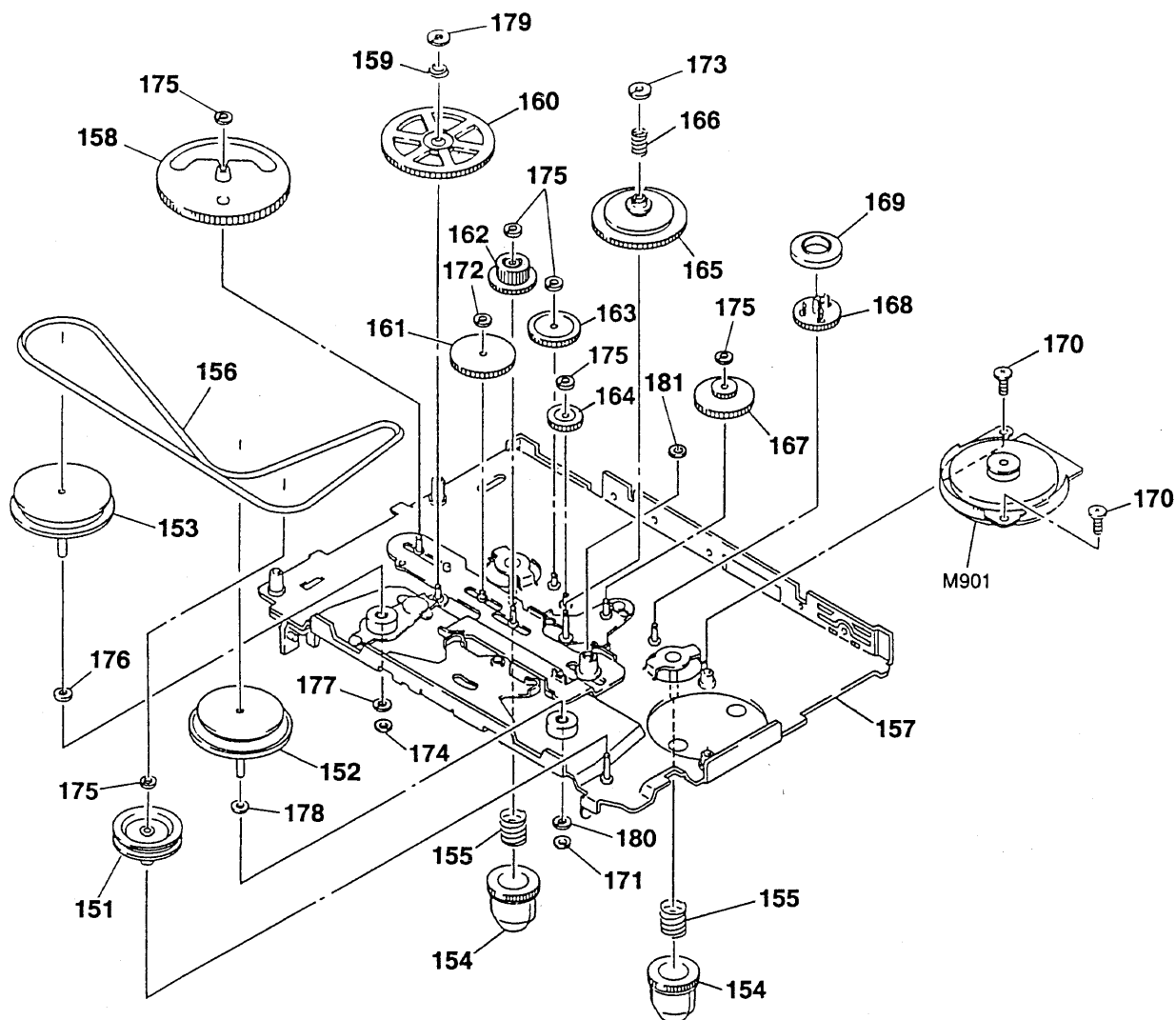
6-3. MECHANISM SECTION 1 (MT-WMEX911-60)



Ref. No.	Part No.	Description	Remark
101	X-3369-377-1	BRACKET ASSY	
102	3-918-901-01	KNOB (D/M)	
103	3-918-900-11	COVER, MD (EX511)	
* 103	3-918-900-21	COVER, MD (EX618)	
104	3-918-850-01	SPRING (CASSETTE) (CF)	
105	3-918-782-01	GUIDE (BK), HOLDER	
106	3-922-843-01	BRACKET (L)	
107	X-3369-347-1	HOLDER (K) ASSY	
108	X-3369-379-1	ARM ASSY, CLICK	
109	3-386-683-01	SPRING (H)	
110	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	

Ref. No.	Part No.	Description	Remark
111	X-3366-298-1	PINCH LEVER (N) ASSY	
112	3-386-684-11	SPRING (PINCH N)	
* 113	3-386-646-01	LEVER, HEAD	
114	3-704-413-31	SCREW (M1.4X7.2)	
115	X-3366-296-1	PINCH LEVER (R) ASSY	
116	3-386-685-11	SPRING (PINCH R)	
117	3-366-892-01	SCREW (M1.4)	
118	3-704-197-21	SCREW (M1.4X2.5), LOCKING	
119	3-907-009-41	SCREW (M1.4)	
120	3-907-859-01	SPACER (H)	
HP901	1-500-091-11	HEAD, MAGNETIC (PLAYBACK)	

6-4. MECHANISM SECTION 2 (MT-WMEX911-60)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-386-711-11	PULLEY (REVERSE)		167	3-918-784-01	GEAR (DK)	
152	X-3368-639-1	WHEEL (RS) ASSY, CAPSTAN		168	3-912-176-01	GEAR (F)	
153	X-3369-346-1	WHEEL (NSK) ASSY, CAPSTAN		169	3-912-172-01	MAGNET	
154	3-912-169-01	GEAR (REEL)		170	3-704-197-11	SCREW (M1.4X2.0), LOCKING	
155	3-913-727-01	SPRING (BT), COMPRESSION		171	3-325-394-01	WASHER, STOPPER	
156	3-919-884-01	BELT		172	3-348-953-01	WASHER	
157	X-3369-345-1	CHASSIS ASSY		173	3-348-953-11	WASHER	
158	3-912-173-01	GEAR (CAM)		174	3-348-993-01	WASHER	
159	3-912-170-01	SPRING (FR), COMPRESSION		175	3-349-859-01	WASHER	
160	3-919-886-01	GEAR (FR)		176	3-350-945-11	WASHER	
161	3-918-783-01	GEAR (AK)		177	3-350-989-01	WASHER	
162	3-918-785-01	GEAR (BK)		178	3-386-694-01	WASHER	
163	3-912-175-01	GEAR (G)		179	3-906-183-01	WASHER	
164	3-912-168-01	GEAR (E)		180	3-919-885-01	WASHER	
165	X-3369-344-1	CLUTCH ASSY (K)		181	3-923-717-01	WASHER	
166	3-913-620-01	SPRING (UD), COMPRESSION		M901	1-698-463-11	MOTOR	

MAIN

When indicating parts by reference number, please include the board name.

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D501	8-719-420-51	DIODE MA729		< RESISTOR >			
D502	8-719-421-36	DIODE MA8036-L		R101	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
D701	8-719-049-09	DIODE 1SS367		R102	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
D702	8-719-051-01	DIODE CL-170HR-CD (BATT)		R103	1-216-789-11	METAL CHIP 2.2 5% 1/16W	
D703	8-719-422-37	DIODE MA8051		R104	1-216-815-11	METAL CHIP 330 5% 1/16W	
< HALL ELEMENT >				R113	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
H701	8-719-042-61	ELEMENT, HALL HW-108AFT-DE		R201	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
< IC >				R202	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
IC301	8-759-273-41	IC BA3610KV		R203	1-216-789-11	METAL CHIP 2.2 5% 1/16W	
IC302	8-759-275-48	IC NJM2185V		R204	1-216-815-11	METAL CHIP 330 5% 1/16W	
IC601	8-759-996-13	IC TLP326ADB		R213	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
IC701	8-759-287-94	IC MSM6576-58GS-K (FORMER)		R301	1-216-837-11	METAL CHIP 22K 5% 1/16W	
IC701	8-759-335-00	IC MSM6576-60GS-K (NEW)		R302	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
< JACK >				R303	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
J301	1-766-512-21	JACK 7P (C) REMOTE		R304	1-218-729-11	METAL CHIP 36K 0.50% 1/16W	
< JUMPER RESISTOR >				R306	1-216-861-11	METAL CHIP 2.2M 5% 1/16W	
JC1	1-216-864-11	METAL CHIP 0 5% 1/16W		R307	1-216-849-11	METAL CHIP 220K 5% 1/16W	(Suffix No. 12)
JC2	1-216-864-11	METAL CHIP 0 5% 1/16W		R307	1-216-853-11	METAL CHIP 470K 5% 1/16W	(Suffix No. 11)
< COIL >				R308	1-216-833-11	METAL CHIP 10K 5% 1/16W	
L501	1-412-148-11	INDUCTOR CHIP 56uH		R309	1-216-849-11	METAL CHIP 220K 5% 1/16W	
L502	1-412-148-11	INDUCTOR CHIP 56uH		R310	1-216-821-11	METAL CHIP 1K 5% 1/16W	
< TRANSISTOR >				R321	1-216-843-11	METAL CHIP 68K 5% 1/16W	
Q301	8-729-422-45	TRANSISTOR XN1217		R323	1-216-817-11	METAL CHIP 470 5% 1/16W	
Q302	8-729-230-72	TRANSISTOR 2SA1362YG		R324	1-216-809-11	METAL CHIP 100 5% 1/16W	
Q303	8-729-420-50	TRANSISTOR UN5215		R325	1-216-833-11	METAL CHIP 10K 5% 1/16W	
Q305	8-729-402-90	TRANSISTOR XN4609		R501	1-216-819-11	METAL CHIP 680 5% 1/16W	
Q306	8-729-422-18	TRANSISTOR XN4315		R502	1-216-820-11	METAL CHIP 820 5% 1/16W	
Q501	8-729-010-40	TRANSISTOR MSD1328-ST1		R503	1-216-801-11	METAL CHIP 22 5% 1/16W	
Q502	8-729-230-63	TRANSISTOR 2SC4116-YG		R505	1-216-833-11	METAL CHIP 10K 5% 1/16W	
Q503	8-729-422-18	TRANSISTOR XN4315		R601	1-216-809-11	METAL CHIP 100 5% 1/16W	
Q601	8-729-230-72	TRANSISTOR 2SA1362YG		R602	1-216-809-11	METAL CHIP 100 5% 1/16W	
Q602	8-729-230-72	TRANSISTOR 2SA1362YG		R603	1-216-809-11	METAL CHIP 100 5% 1/16W	
Q603	8-729-230-72	TRANSISTOR 2SA1362YG		R604	1-216-845-11	METAL CHIP 100K 5% 1/16W	
Q604	8-729-422-51	TRANSISTOR UN5110-QRS		R605	1-216-835-11	METAL CHIP 15K 5% 1/16W	
Q605	8-729-230-63	TRANSISTOR 2SC4116-YG		R607	1-216-831-11	METAL CHIP 6.8K 5% 1/16W	
Q606	8-729-402-16	TRANSISTOR XN4608		R608	1-216-793-11	METAL GLAZE 4.7 5% 1/16W	
Q606	8-729-402-84	TRANSISTOR XN4601		R609	1-216-833-11	METAL CHIP 10K 5% 1/16W	
Q701	8-729-422-51	TRANSISTOR UN5110-QRS		R610	1-216-837-11	METAL CHIP 22K 5% 1/16W	(Suffix No. 11)
Q702	8-729-420-50	TRANSISTOR UN5215		R610	1-216-839-11	METAL CHIP 33K 5% 1/16W	(Suffix No. 12)
Q703	8-729-420-50	TRANSISTOR UN5215		R611	1-216-833-11	METAL CHIP 10K 5% 1/16W	
Q704	8-729-402-84	TRANSISTOR XN4601 (IC701 FORMER)		R612	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
				R613	1-216-845-11	METAL CHIP 100K 5% 1/16W	
				R614	1-216-833-11	METAL CHIP 10K 5% 1/16W	
				R701	1-216-815-11	METAL CHIP 330 5% 1/16W	
				R702	1-218-870-11	METAL CHIP 9.1K 0.50% 1/16W	
				R703	1-218-836-11	METAL CHIP 360 0.50% 1/16W	

MAIN MOTOR FLEXIBLE

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R705	1-216-819-11	METAL CHIP	680 5% 1/16W		1-654-436-11	MOTOR FLEXIBLE BOARD	
R706	1-216-809-11	METAL CHIP	100 5% 1/16W			*****	
R707	1-218-845-11	METAL CHIP	820 0.50% 1/16W			< MOTOR >	
R708	1-218-692-11	METAL CHIP	1K 0.50% 1/16W				
R709	1-218-694-11	METAL CHIP	1.2K 0.50% 1/16W	M901	1-698-463-11	MOTOR	
R710	1-216-836-11	METAL CHIP	18K 5% 1/16W			*****	
			(IC701 FORMER)			MISCELLANEOUS	
R710	1-216-845-11	METAL CHIP	100K 5% 1/16W			*****	
			(IC701 NEW)				
R711	1-216-851-11	METAL CHIP	330K 5% 1/16W				
R712	1-216-836-11	METAL CHIP	18K 5% 1/16W	53	1-654-436-11	MOTOR FLEXIBLE BOARD	
			(IC701 FORMER)	HP901	1-500-091-11	HEAD, MAGNETIC (PLAYBACK)	
R712	1-216-845-11	METAL CHIP	100K 5% 1/16W	M901	1-698-463-11	MOTOR	
			(IC701 NEW)	S901	1-762-187-11	SWITCH, LEAF (ATS, TAPE)	
R713	1-216-829-11	METAL CHIP	4.7K 5% 1/16W			*****	
R714	1-216-853-11	METAL CHIP	470K 5% 1/16W			ACCESSORIES & PACKING MATERIALS	
			(IC701 FORMER)			*****	
R715	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W				
			(IC701 FORMER)			1-504-714-11	HEADPHONE(WITH REMOTE CONTROL)
R716	1-216-853-11	METAL CHIP	470K 5% 1/16W			1-528-231-22	BATTERY, NICKEL CADMIUM(NC-6WM) (EX511)
			(IC701 FORMER)	△		1-528-252-11	BATTERY CHARGER (BC-7S) (EX618:UK)
R717	1-216-846-11	METAL CHIP	120K 5% 1/16W	△		1-528-445-11	BATTERY CHARGER (BC-8AT) (EX511)
			(IC701 FORMER)			1-528-543-11	BATTERY, NICKEL CADMIUM(NC-6WM) (EX618:E)
		< VARIABLE RESISTOR >				1-528-543-21	BATTERY, NICKEL CADMIUM(NC-6WM) (EX618:AEP, UK)
RV301	1-223-774-11	RES, VAR, CARBON 30K/30K (VOL)		△		1-528-544-11	BATTERY CHARGER (BC-7DT) (EX618:E)
RV601	1-223-229-21	RES, ADJ, METAL GLAZE 4.7K		△		1-528-546-11	BATTERY CHARGER (BC-7SY) (EX618:AEP)
		< SWITCH >		△		1-550-640-11	BATTERY CASE
S302	1-762-078-11	SWITCH, SLIDE (DOLBY NR)		△		1-569-007-11	ADAPTER, CONVERSION 2P (EX511/EX618:E)
S303	1-762-079-11	SWITCH, SLIDE (EX DBB)				1-759-043-11	BATTERY CASE
S304	1-762-078-11	SWITCH, SLIDE (AVLS)		*		3-376-784-11	CUSHION (EX511/EX618:AEP, E)
S701	1-762-188-11	SWITCH, PUSH (1 KEY) (A/B SIDE)		*		3-376-784-11	CUSHION (EX618:E)
S702	1-692-370-11	SWITCH, SLIDE (MODE)		*		3-382-452-11	CASE, ACCESSORY (EX618)
						3-759-938-41	MANUAL, INSTRUCTION (JAPANESE, ENGLISH) (EX511)
S703	1-762-078-11	SWITCH, SLIDE (HOLD →)				3-800-025-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, CHINESE) (EX618)
S704	1-762-078-11	SWITCH, SLIDE (MODE/BL SKIP)				3-800-025-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH) (EX618:AEP)
S707	1-762-230-11	SWITCH, KEYBOARD (□)				3-800-025-51	MANUAL, INSTRUCTION (FRENCH, ITALIAN, PORTUGUESE) (EX618:AEP)
S708	1-762-230-11	SWITCH, KEYBOARD (< ▷ REPEAT)				3-918-892-01	CASE, CARRYING
S709	1-762-230-11	SWITCH, KEYBOARD (AMS, FF)				3-920-201-01	CLIP
		< TRANSFORMER >					
T501	1-450-666-11	TRANSFORMER, DC-DC CONVERTER		*		3-920-291-01	INDIVIDUAL CARTON (EX511)
		< VIBRATOR >		*		3-920-293-01	INDIVIDUAL CARTON (EX618:AEP, E)
X701	1-579-616-11	VIBRATOR, CRYSTAL (32.768kHz)				X-3329-657-1	ATTACHMENT

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

WM-EX511/EX618

SONY SERVICE MANUAL

AEP Model
UK Model
E Model
Australian Model
WM-EX618

Tourist Model
WM-EX511

SUPPLEMENT-1

File this supplement with the service manual.

Subject : 1. The Australian model added.
2. AU Cover is an available as spare parts.
3. CORRECTION

1. The Australian model is identical with the E model except for the following parts.

• DIFFERENT PARTS LIST

ACCESSORIES & PACKING MATERIALS

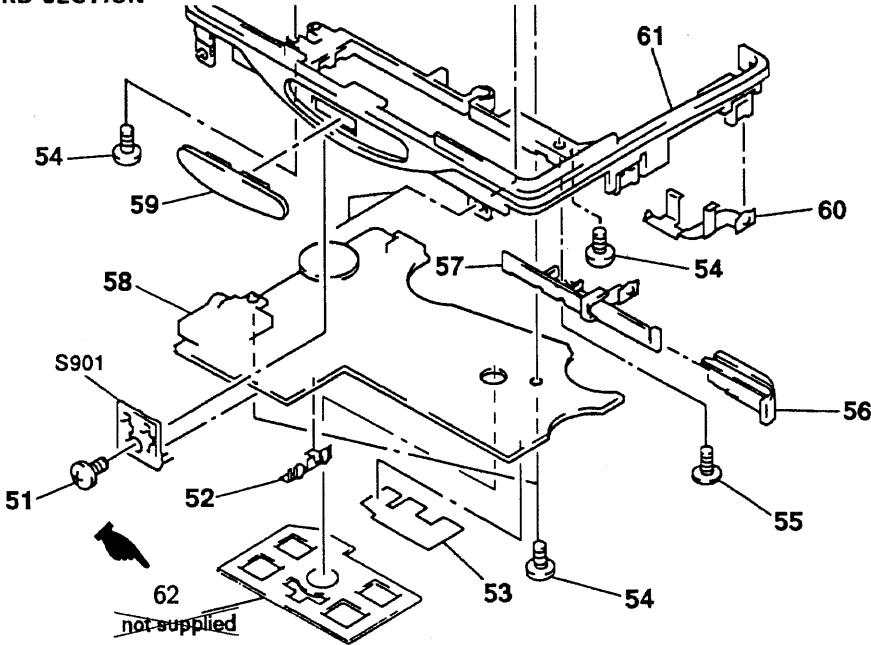
WM-EX618 E MODEL		WM-EX618 Australian MODEL	
<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
1-528-543-11	BATTERY, NICKEL CADMIUM (NC-6WM)		
△1-528-544-11	BATTERY CHARGER (BC-7DT)		
△1-569-007-11	ADAPTER, CONVERSION 2P		
* 3-382-452-11	CASE, ACCESSORY		
3-800-025-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, CHINESE)	3-759-938-41	MANUAL, INSTRUCTION (ENGLISH, KOREAN)

2. Revise your service manual as shown below due to parts supply classification has been changed.

 : indicates revised portion.

Page	CURRENT			REVISED		
24	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>
			not supplied	62	* 3-922-842-01	COVER, AU

6-2. MAIN BOARD SECTION



(RPC-95056)

3. CORRECTION

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT			CORRECT	
24	<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
	54	3-704-197-21	SCREW (M1.4×2.0), LOCKING	3-704-197-21	SCREW (M1.4×2.5), LOCKING